L 44227-66

ACC NR: AP6024636

formulas and 2 figures.

SUB CODE: 20,21/ SUBM DATE: 03Jan66/ ORIG REF: 014

Card 2/2 MT

LEBEDEV, P.F., inzhener

The problem of reinforcing sloping surfaces dams and navigable canals. Mech. transp. 14 no.6:27-28 Je '55. (MLRA 8:9)
(Embankments)

LEBEDEV, P.F.

Rock-removing operations on the Amur River. Rech. transp. 17 no. 7:36-38 Jl '58. (MIRA 11:8)

1. Glavnyy inzhener Amurskogo basseynovogo upravleniya puti. (Amur River--Blasting)

LEBED.V, P.F.

Objectives and a model program for surveying the Amur River bed. Amur. sbor. no. 1:21-28 '59. (MIRA 14:2)

1. Glavnyy inzhener Amurskogo basseynovogo upravleniya puti.
(Amur River--Hydrographic surveying)

LEBEDEV, P.F., inzh.; ZAYDMAN, Ya.D., inzh.

Leveling irrigated lands subjected to sagging. Gidr. i me.. -
no.5:18-20 My '65. (MIRA 18:7)

1. Vsesoyuznyy gosudarstvennyy proyektno-izyskatel'skiy i nauchno-issledovatel'skiy institut vodokhozyaystvennogo stroitel'stva Gosudarstvennogo proizvodstvennogo kombinata po oroshayemomu zemledeliyu i vodnomu khozyaystvu SSSR.

LEBEDEV, P.F.; MEL'NIK, N.S.

Effect of nitrogen and light intensity on tillering and productivity of the timothy grass (Phleum pratense L.). Dokl. AN SSSR 137 no.1: 224-227 Mr-Ap '61. (MIRA 14:2)

1. Ural'skiy gosudarstvennyy universitet im. A.M. Gor'kogo. Predstavleno akademikom A.L. Kursanovym.
(Timothy grass) (Plants, Effect of light on)
(Plants, Effect of nitrogen on)

LEBEDEV, P.F., inzh.

All-Union seminar on the leveling of irrigated lands. Gidr. i mel. 15 no.2:58-59 F '63. (MIRA 16:4)

1. Vsesoyuznyy gosudarstvennyy proyektno-izyskatel'skiy i nauchno-issledovatel'skiy institut Ministerstva sel'skogo khozyaystva SSSR.
(Grading(Earthwork)—Congresses)

LEBEDEV, P. I.

"Method of Heat Calculation of Spraying Tanks (Collected Works)
Metod teplovogo rascheta bryzgal'nykh basseynov. sbornik trudov.

(nauch-issled. in-t po osnovaniyam i fundamentam, leningrad. otd-nie) No. 1, 1949, s. 58-72.

AU Sci. Res. Inst. for Study of Bases and Foundations of Engrg. Structures.

Leto.is' Zhurnal'nykh Statey, Vol 7, 1949

YEZERSKIY, F.; LEBEDEV, P.I., redaktor; LUKIN, F.I., tekhnicheskiy redaktor

[Bridge and highway engineering; manual for study groups of the All-Union Voluntary Association for Cooperation with the Army, Air Force, and Navy] Dorozhno-mostovoe delo; posobie dlia uchebnykh grupp Dosaaf. Moskva, Izd-vo Dosaaf, 1953. 182 p. [Microfilm] (MLRA 7:10)

(Military roads) (Military bridges)

SOV/124-57-8-8961

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 8, p 56 (USSR)

AUTHOR: Lebedev, P. I.

TITLE: Laboratory Determination of the Wave Loads on a Lone Pier (Laboratornoye opredeleniye volnovykh nagruzok na otdel'no stoyashchuyu oporu)

PERIODICAL: Sb. tr. Vses. n.-i. in-ta gidrotekhn. i san-tekhn. rabot, 1956, Nr 7, pp 115-129

ABSTRACT: Description of attempts to determine the wave action on two versions (pile-type and buttress-type) of a lone pier. The magnitude of the wave action was measured with the aid of a strain-gage sensor and was recorded oscillographically. The test results, extrapolated according to the law of similarity, come fairly close to the full-scale measurements of Glukhovskiy and Vilenskiy (Tr. gos. okeanograf. in-ta, 1954, Nr 26); the empirical formula of A. V. Afonskiy (Avtoref. diss. kand. tekhn. n., MISI, 1954) affords too crude an approximation and in a number of cases goes counter to test results. Sketches, photographs, and tabulations of the test results are adduced.

S. V. Zhak

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L 15171-63 EWT(1)/EWG(k)/EWP(q)/EWT(m)/BDS/EEC(b)-2 AFFTC/ASD/ESD-3
Pz-4 JD/AT/LJP(c)
ACCESSION NR: AR3003340 S/0058/63/000/005/E073/E073

72

SOURCE: RZh. Fizika, Abs. 5E459

AUTHOR: Kot, M. V.; Kretsu, I. V.; Lebedev, P. I.

TITLE: Electric properties of crystals of zinc antimonide doped with gallium

CITED SOURCE: Tr. po fiz. poluprovodnikov. Kishinevsk. un-t, vy*p. 1, 1962, 28-36

TOPIC TAGS: zinc antimonide, single crystal, conductivity, Hall constant, thermal emf, gallium doping, mobility ratio

TRANSLATION: The temperature dependence of the electric conductivity (σ), the Hall constant (R), and the thermal emf (α) of single crystals of ZnSb doped with Ga were measured. The single crystals were grown by the zone-melting method and had a rhombic lattice. The components of the tensors α, σ, and R along the a, b, and c axes were determined. It is assumed that Ga serves as a compensating (donor) mixture and has low solubility in ZnSb, since the conductivity mechanism does not change in the low-temperature region. The results of the measurements were used to calculate the width of the forbidden zone $\Delta E_0 = 0.64$ eV and the ratio of the mobilities ($U_n/U_p = 0.3-0.4$). The effective mass of the holes is $m_p = 0.7m_0$.

E. Smolyarenko

Card 1/1 DATE ACQ: 17 Jun 63 SUB CODE: PH ENCL: 00

L 17158-63 EPA(b)/EWT(1)/FCC(w)/FS(v)-2/BDS/ES(v) AFFTC/AFMDC/
ESD-3/APGC/SSD Pd-4/Pe-4/Pg-4/Po-4/Pq-4 GW

ACCESSION NR: AT3006848 S/2560/63/000/016/0211/0225

85

AUTHOR: Aleksakhin, I. V.; Krasovskiy, A. A.; Lebedev, P. I.; Yakovleva, A. I.

TITLE: Determination of the parameters of the initial orbits of artificial earth satellites

SOURCE: AN SSSR. Iskusst. sputniki Zemli, no. 16, 1963, 211-225

TOPIC TAGS: satellite orbit, orbital element, satellite launching, coordinate system, initial orbit, orbital parameter, rocketry

ABSTRACT: Based on the theory of undisturbed planetary motion, working formulas have been obtained for computing: 1) the parameters of the initial orbit based on given parameters of the motion of the center of satellite mass at the moment of going into orbit, and 2) partial derivatives from the parameters of the initial orbit on the basis of the parameters of motion of the center of satellite mass in the launch and initial launch coordinate systems at the moment of going into orbit. Four Cartesian rectangular coordinate systems are employed, i.e., launch, ground, sidereal, and

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ACCESSION NR: AT3006848

initial launch. Initial satellite orbit is here understood to be the orbit of motion in the central gravitational field described by the Newtonian potential in the absence of perturbing forces. The parameters of the initial orbit are functions of the following parameters of motion of the center of satellite mass at the moment of assuming orbit: 1) parameters determining the moment the satellite assumes orbit, 2) parameters determining the position of the earth in space, 3) parameters determining the position of the launch coordinate system on the surface of the earth, and 4) parameters determining the coordinates and velocity components of the center of satellite mass in the launch coordinate system at the moment of assuming orbit. Orig. art. has: 90 formulas.

ASSOCIATION: none

SUBMITTED: 20Jul62 DATE ACQ: 08Aug63 ENCL: 00

SUB CODE: AS NO REF SOV: 003 OTHER: 000

Card 2/2

KOT, M.V.; KRETSU, I.V.; LEBEDEV, P.I.

Electric properties of crystalline zinc antimonide alloyed with gallium. Trudy po fiz. poluprov. no.1:28-36 '62. (MIRA 16:11)

LEBEDEV, P.I.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1623
AUTHOR BALAC,M.JA., LEBEDEV,P.I., OBUCHOV,JU.V.
TITLE Measuring the Life of K-Mesons.
PERIODICAL Žurn.eksp.i teor.fis,31,fasc.3, 531-533 (1956)
Issued: 12 / 1956

The average life of the charged K-mesons of cosmic radiation was measured at sea level with the help of liquid-scintillation-counters and of a high frequency oscillograph. The arrangement and the mode of operation of the counters is discussed in short. The time needed for development was $1,3.10^{-7}$ sec and the minimum time of growth in the amplifier was $2,5.10^{-9}$ sec. The error, which was found by experimenting and which is connected with the fluctuations in time of the photomultiplier FEU-19 remained below 10^{-9} sec. A further source of errors is mentioned.
For the purpose of taking "post impulse" of the multiplier and of the shifts with respect to time between impulses (which occur as a result of the difference in the time needed for the passage of two coupled particles) into account, the distributions of the time intervals between impulses in the case of different arrangements of the counters are measured. In connection with these control tests the number of acts of decay in the counter itself was negligibly small. The results of these control tests were taken into account when dealing with the results.

Zurn.eksp.i teor.fis,31,fasc.3,531-533 (1956) CARD 2 / 2 PA - 1623

The lowest energy of the decaying myon which was still able to obtain a response from the measuring system, amounted to 25 MeV. Thus the acts of decay $\pi \rightarrow \mu + \nu$ were eliminated. An act of decay $\mu \rightarrow e + 2\nu$ was able to cause the device to respond, but because the resolving power of the coincidence scheme amounts to 4.10^{-8} sec, the probability of such a response was sufficiently small.
All in all, 64 acts of decay were noticed during 1600 hours of operation in the interval of from 10^{-8} to 4.10^{-8} sec. The integral distribution of the times of decay is shown in a graph. The average life of K-mesons obtained is $(9,5 \pm 2,0).10^{-9}$ sec if a decay rule with an exponent is assumed. This result is in agreement with those of several American works. Two further graphs illustrate the scheme of the measuring system and the curve of the resolving of the threefold coincidences.

INSTITUTION:

Lebedev, P. I.

120-2-18/37

AUTHOR: Balats, M. Ya., Lebedev, P. I., and Obukhov, Yu. V.

TITLE: A High Speed Oscilloscope. (Vysokoskorostnoy Ostsillograf).

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No.2, pp. 63 - 67 (USSR).

ABSTRACT: A description and analysis of an oscilloscope for the photographic investigation of pulses with 3×10^{-9} secs. rise time is given. The scope has been built in the Soviet Union using Russian components. The signal is applied to a two stage pre-amplifier and via a 20 meter HF cable; a phase inverter and push-pull output is applied to the vertical deflection plates of a 5RP1-A CRT (since replaced by a tube of Russian manufacture). A part of the 150-180V signal is applied via an inverting pulse transformer to a high speed time base using type 2050 thyratron. Part of the scanning voltage is used for triggering the relay of the camera shutter. The final vertical deflection amplifier consists of 12 tubes type 6Ж1П in distributed amplifier connection. Matching from the pre-amplifier to the output amplifier is achieved by means of a phase inverter designed as a three tube distributed parameters amplifier with 6Ж1П tubes. This amplifier has a gain of about 1 and band-width of about 200Mc/s. The pre-amplifier consists of two identical travelling wave amplifiers of 8 tubes 6Ж1П in

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A High Speed Oscilloscope.

each stage. The delayed triggering is obtained using a co-axial cable length of 200 ohms impedence between the phase inverter and the pre-amplifier. Matching between all stages is achieved by means of a 200 ohms impedence for the grid line of the vertical deflection amplifier and for the anode line of the phase inverter and of the pre-amplifier. Artificial anode and grid lines are m-derived filters with m = 1.27. The load lines have m-derived sections with m = 0.6, which permits to keep the wave impedence constant up to $f \approx 0.8 f_{cr}$. A detailed description of all distributed line sections is given (Ref. 5): the total gain of the vertical deflection amplifier is 500, its response flat up to 170Mc/s, which corresponds to a rise time of about 2.5×10^{-9} secs. A detailed description of the fast time thyratron base generator is also given, two speeds being available for the final anode voltage of 23kV: 130 and 40cm per μsec. Photographs are taken using 1 : 1.5 objective and type РФ-3 film with a sensitivity of 800 units ГОСТ. One block diagram, three circuit diagrams, the frequency response graph, a detailed drawing of the loading section, photograph of the 8 tube distributed amplifier and four

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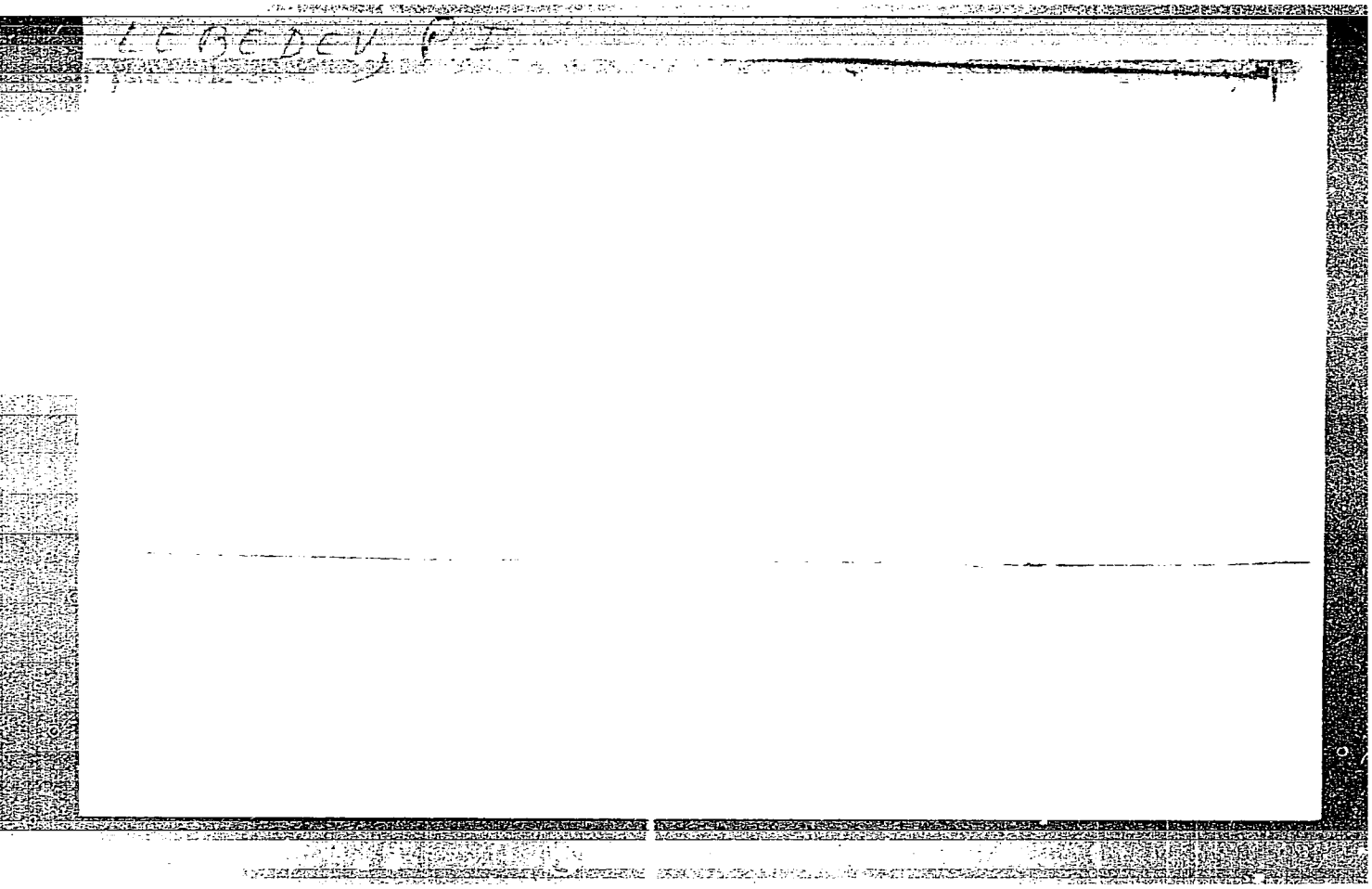
photographs of pulse pictures are given. S. Ya. Nikitin and A. G. Meshkovskiy have co-operated in the construction of the instrument. There are 6 references, 2 of which are Slavic.

SUBMITTED: November, 18, 1955.

AVAILABLE: Library of Congress.

Card 3/3



USR

21(7) SOV/56-37-3-1/62

AUTHORS: Balats, M. Ya., Lebedev, P. I., Obukhov, Yu. V.

TITLE: Production of K^+-Mesons by Protons of Cosmic Rays Altitude of 3250 m Above Sea Level

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 37, Nr 3(9), pp 589 - 595 (USSR)

ABSTRACT: It was the aim of the present paper to determine the momentum spectrum of K^+-mesons produced by cosmic ray rotons as well as to evaluate the production cross sections. In the first part of the paper the experimental arrangement (Fig 1) is described in great detail. Within a system of Geiger-Mueller counters there were 6 lead slabs of equal thickness (5o g/cm^2) and different size; below this hodoscope system there were 4 liquid-scintillation counters, two of which (C_3 and C_4) were symmetrically located on the two sides of an aluminum absorber. These four counters were connected in triple coincidence ($C_1+C_2+C_3(C_4)$). The scintillation counters are discussed separately and are schematically represented by figure 2. Figure 3 shows a block scheme of the entire apparatus. Also the radio-

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technical system of K-meson recording (life time $1.2 \cdot 10^{-8}$ sec) is briefly discussed. In the following part of this paper the K^+-decay scheme is briefly discussed. Four experiments were carried out on the device described: Experiment a: Duration 1200 hours; it served the purpose of investigating the K^+ spectrum in the range interval (50-350) g/cm^2 as well as determining the production cross section of these mesons. Experiment b: 200 hours; this experiment is carried out for the purpose of investigating the degree of efficiency of K^+-recording in the individual layers; the three lowest lead slabs had been removed for this experiment. Experiment c: 500 hours; this experiment was carried out in the same manner as experiment a, but this time the absorber had been removed. Experiment d: 196 hours. This experiment was carried out for the purpose of determining the background connected with the air showers. The directives for the evaluation of results are given, and the thus obtained data are shown in table 1. Finally, the results were discussed. In figure 6 the momentum spectrum of the K^+-mesons within the range of 0.2 - 0.9 Bev/c is shown; figure 7 shows the curve of the duration of decay. The exact value of

the life time of the K^+-mesons found in these experiments amounts to $(10.0 \pm 1.2).10^{-9}$sec. The momentum spectrum at an altitude of 3200 m may be approximated by the function $N(p)dp = A^{-2.7}dp$, where $A = 0.9.10^{-3}$ particles/cm^2sec. steradian and the angular distribution is expressed by $N(\theta)d\theta \sim \cos^6\theta\, d\theta$. The authors finally thank A. I. Alikhanov, G. P. Yeliseyev, V. A. Lyubimov, and A. G. Meshkovskiy for discussion, A. I. Alikhanyan for making it possible to work at Mount Alagez Cosmic Station, and further K. A. Zaytsev and A. N. Rozanov for assisting in the experiments. There are 7 figures, 2 tables, and 9 references, 3 of which are Soviet.

SUBMITTED: December 3, 1958

85678

S/056/60/038/006/020/049/XX
B006/B070

24.6300

AUTHORS: Balats, M. Ya., Kondrat'yev, L. N., Landsberg, L. G., Lebedev, P. I., Obukhov, Yu. V., Pontekorvo, B.

TITLE: Non-radiative Transitions in Heavy μ-mesic Atoms

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 38, No. 6, pp. 1715 - 1719

TEXT: This paper is concerned with studies of the spectra of X-ray photons emitted by mesic atoms of uranium and lead. Since so far only two 2P→1S transition mechanisms in mesic atoms have been studied (emission of meso-X-ray photons, and Auger effect), this work is a supplement as well as a contribution to the data on the properties of heavy nuclei. The experimental arrangement is described in the introduction and schematically shown in Fig. 1. A π⁻beam (270 Mev/c) from the synchrocyclotron of OIYaI (Joint Institute of Nuclear Research) was used. The targets had a thickness of 10.7 g/cm² for uranium and of 10.3 g/cm² for lead. A scintillation counter with a photomultiplier

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of the type ФЭУ-33 (FEU-33) served as the gamma quantum detector. The counter pulses were conveyed to a 64-channel pulse-height analyzer. The background of the accidental coincidences amounted to about 5% of the counting rate. A Na^{24} source (E_γ = 1.38 and 2.76 Mev) was used for calibration and checking the linearity. The results of measurement for the range 3 - 8 Mev are shown in Fig. 3. Curve I gives the upper limit of the background, II the lower limit for the background of Pb and III the lower limit for the background of U (n - number of counts per analyzer channel). The spectra are normalized for one and the same μ-mesons stopped in the target. The Pb curve has a clear peak at ~5.3 Mev. On account of the smallness of the NaI (TI) crystal, this peak can be due to three photon energies: 1) E_γ; 2) E_γ -0.5; Mev; 3) E_γ -1.02 Mev, where E_γ = 6.02 Mev is the energy of the 2P→1S transition photons in mesic lead. In the region of the peak (5 - 5.5 Mev), less counts were obtained from uranium than from lead. The mean energy of the peak corresponding to the transition 2P→1S is about 200 kev larger from uranium than from lead. The photon intensity difference at 6 Mev in mesic uranium and mesic lead indicates that a non-radiative

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transition of μ^- mesons to the 1S level of mesic uranium takes place here. Such a non-radiative transition in which the transition energy is directly transferred to the nucleus, had not yet been observed. A rough estimate of the ratio of the non-radiative transition probability in lead to the probability of emission of a photon gives the value $(W_b/W_\gamma)_{U^{238}} \sim 0.2$. Preliminary experiments have further shown that non-radiative transitions take place also in Th^{232}.

A. I. Alikhanov is thanked for his interest, and D. F. Zaretskiy for making some results available before publication. G. Ye. Belovitskiy is mentioned. The preliminary results of these investigations were communicated by A. I. Alikhanov to the Nineth All-Union Conference on Physics of High-energy Particles held in Kiyev in 1959. There are 3 figures and 6 references: 2 Soviet, 3 US, and 1 Dutch.

SUBMITTED: January 19, 1960

Card 3/5

85678

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B006/B070

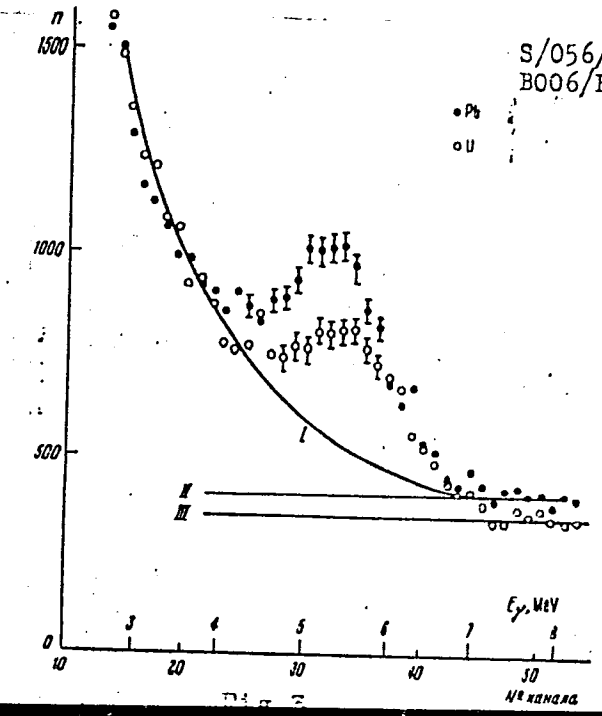

Fig. 3

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B006/B070

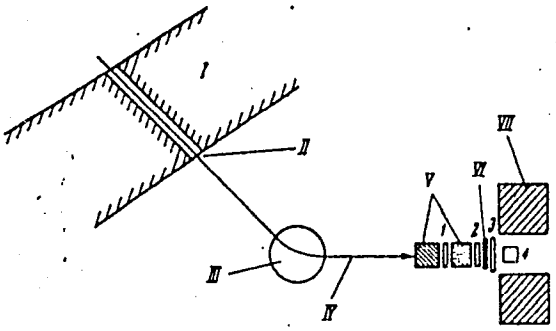

Fig. 1

Legend to Fig. 1: I - concrete shield, II - collimator, III - deflecting magnet, IV - π^- beam, V - filter (75 g/cm^2 Cu + 32g/cm^2 B_4C), VI - target, VII - counter shield (20 cm lead), 1,2 -plastic scintillators, (110 mm diameter, 10 mm thick), 3 - the same (125 mm diameter, 12 mm thick), 4 - NaI(Tl) crystal (30 mm diameter, 10 mm thick).

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84429

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B006/B056

24.6900

AUTHORS: Balats, M. Ya., Kondrat'yev, L. N., Landsberg, L. G., Lebedev, P. I., Obukhov, B. V., Pontekorvo, B.

TITLE: The Intensity of Radiationless Transitions in μ-Mesic Atoms

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 4(10), pp. 1168 - 1170

TEXT: In an earlier paper (Ref. 1) the authors found that the intensity of mesic X-rays 2P - 1S in U^{238} normalized to one stopped muon is considerably less than in Pb. This fact indicates the existence of radiationless transitions in heavy mesic atoms, in which the energy of the 2P - 1S transition is not liberated in the form of an X-ray photon. It is assumed that the probability of radiationless transition (W_{rl}) in mesic lead is negligibly small in comparison to the probability ($W_{h\nu}$) of a transition with emission of one photon $((W_{h\nu})_{Pb} = 1) : 1 > (W_{rl})_{U^{238}}/(W_h)_{U^{238}} > 0.1$. Now, the authors investigated the 2P - 1S transition intensities in the

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mesic atoms of Pb, Bi, Th, U^{235}, and U^{238}, and give a report on this investigation. With the help of a scintillation spectrometer, the X-ray spectra in the energy ranges corresponding to the transitions were measured. Special attention was paid to determining the background level. Figs. 1 and 2 show examples of the spectra recorded. Fig. 1 shows the spectra of mesic X-ray photons from targets of Pb(4.46 g/cm^2), Bi(4.46 g/cm^2), and U^{238}(4.60 g/cm^2); as abscissa, the pulse height in volts, and as ordinate, the number of pulses in an interval of 5v is taken. Fig. 2 shows the same for Pb(5.56 g/cm^2) and U^{235}(5.59 g/cm^2). The intensities of mesic X-radiation (2P - 1S) normalized to one stopped μ^--meson (in relative units) are given in a table:

	Intensities	Fraction of radiationless 2P - 1S transitions
Pb	1	-
Bi	1 $\pm$ 0.06	0 $\pm$ 0.06
Th	0.85 $\pm$ 0.07	0.15 $\pm$ 0.07
U^{235}	0.71 $\pm$ 0.05	0.29 $\pm$ 0.05
U^{238}	0.77 $\pm$ 0.04	0.23 $\pm$ 0.04

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The Intensity of Radiationless Transitions in μ-Mesic Atoms

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B006/B056

There are 2 figures, 1 table, and 1 Soviet reference.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research). Institut teoreticheskoy i eksperimental'noy fiziki AN SSSR (Institute of Theoretical and Experimental Physics AS USSR)

SUBMITTED: August 13, 1960

Card 3/3

40749

S/120/62/000/004/017/047
E192/E382

24,6730

AUTHORS: Vodop'yanov, F.A., Zlatov, Yu.M., Uvarov, V.A., Barabash, L.Z. and Lebedev, P.I.

TITLE: Investigation of the precision system of programmed frequency-control of the accelerating field in the proton synchrotron

PERIODICAL: Pribory i tekhnika eksperimenta, no. 4, 1962, 98 - 101

TEXT: The programmed frequency control in the proton synchrotron is based on two precision elements: a frequency programmer and a driver oscillator (described on pp. 80 and 89 of this issue). During development of this equipment the following problems were investigated: 1) accuracy and stability of the functional relationship of the frequency and the magnetic field in the gaps of the electromagnet; 2) parasitic micro-modulation of the accelerating field and 3) influence of the characteristics of the accelerating field on the process of particle acceleration. The stability was measured at 9 points of the operating-frequency range (between 696 kc/s and 8.295 Mc/s)

Card 1/3 REFERENCE S/120/62/000/004/025/047

and it was found that the short-term instability at the lowest frequency was $\pm 3 \times 10^{-4}$ and $\pm 0.06 \times 10^{-4}$ at the upper limit frequency; corresponding figures for long-term instability are $\pm 4.5 \times 10^{-4}$ and $\pm 0.06 \times 10^{-4}$. The permissible instability for the two limits is $\pm 10 \times 10^{-4}$ and 0.8 ± 10^{-4}. The parasitic micro-modulation due to noise was measured at 15 fixed frequencies and it was found that this never exceeded the prescribed tolerance. The modulation due to combination frequencies was largely reduced by using a balanced-mixer system. Losses in the proton beam as a function of the accuracy of the frequency-change law were investigated during the starting of the accelerator. For this purpose the frequency-programmer of the system received an additional voltage pulse having the gaussian shape and a duration of 50 - 160 μs. Introduction of such perturbations at magnetic fields of 650, 4 000 and 6 000 Oe produced an additional radial deflection of the beam of ± 2.5, ± 3.0 and ± 1 mm, at which the strength of the beam was halved; the frequency changes corresponding to these deflections were $\pm 1.3 \times 10^{-3}$, $\pm 10^{-4}$ and $\pm 1.5 \times 10^{-5}$.

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Investigation of S/120/62/000/004/017/047
E192/E382

ASSOCIATION: Radiotekhnicheskiy institut GKAE
(Radio-engineering Institute, GKAE)

SUBMITTED: April 5, 1962

Card 3/3

LEBEDEV, P. I.
24(6)

10766
S/120/62/000/004/047/047
E039/E420

AUTHORS: Vladimirskiy, V.V., Gol'din, L.L., Pligin, Yu.S., Veselov, M.A., Talyzin, A.N., Tarasov, Ye.K., Koshkarev, D.G., Lapitskiy, Yu.Ya., Barabash, L.Z. Klecpov, I.F., Lebedev, P.I., Kuz'min, A.A., Batalin, V.A., Onosovskiy, K.K., Uvarov, V.A., Vodop'yanov, F.A.

TITLE: Adjustment of the acceleration regime of the 7 Gev proton synchrotron

PERIODICAL: Pribory i tekhnika eksperimenta, no.4, 1962, 248-255

TEXT: In order to establish the optimum parameters for programming the control frequency the intensity, position, and frequency and amplitude of transverse oscillation of the beam is measured in three stages: (1) during the first revolution, (2) with a circulating beam and (3) with acceleration. For measurements on the first revolution long afterglow scintillation screens are used which are either observed visually or by means of a television camera. The screens are placed in the sections between magnet blocks; 15 in the initial part and 10 in the final part of the chamber. It is shown that the orbit does not

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deviate by more than 1.5 cm from the axis during the first revolution. Circulating beams without acceleration are obtained which continue for 20 to 30 revs. The circulating current is determined by means of a flight tube and the transverse oscillation frequency with an electrostatic probe with double vertical and horizontal plates. Scintillation screens in the form of a grid with 85% transmission are used to show the beam position and diameter for 5 to 10 revs. The beam diameter is shown to be about 4 cm under normal conditions. Investigations are carried out on the optimum form of the frequency - time relation for holding the beam in orbit. The width of the trapping region is $\pm$ 3 Kc/s for an initial frequency of 750 Kc/s which agrees well with theoretical estimates. Preliminary adjustment permitted the attainment of 6.2 Gev protons and after adjustment 7.2 Gev protons were obtained on October 25, 1961. The usual intensity on a normal cycle lies in the range 3 to 5 x 10^9.
There are 7 figures and 1 table.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki GKAE (Institute of Theoretical and Experimental Physics GKAE)

SUBMITTED: April 11, 1962
Card 2/2

VLADIMIRSKIY, V.V.; GOL'DIN, L.L.; PLIGIN, Yu.S.; VESELOV, M.A.; TALYZIN, A.N.; TARASOV, Ye.K.; KOSHKAREV, D.G.; LAPITSKIY, Yu.Ya.; BARABASH, L.Z.; KLEOPOV, I.F.; LEBEDEV, P.I.; KUZ'MIN, A.A.; BATALIN, V.A.; ONOSOVSKIY, K.K.; UVAROV, V.A.; VODOP'YANOV, F.A.

Adjustment of acceleration in the 7 bev. proton synchrotron. Prib. i tekh. eksp. 7 no. 4:248-255 Jl-Ag '62. (MIRA 16:4)

1. Institut teoreticheskoy i eksperimental'noy fiziki Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR.

LEBEDEV, P.L., kandidat tekhnicheskikh nauk.

Technical and economic calculation of filtering stations having very high-speed filters. Sbor.trud.VNIIGS no.6:59-77 '55. (Filters and filtration)(Water--Purification) (MLRA 9:7)

LEBEDEV, P.L.

Protection of city gas pipelines in the city of Krasnodar from electrochemical corrosion. Zashch. trub. ot kor. no.5: 3-12 '62. (MIRA 17:7)

1. Trest "Orggaz".

M

Country : USSR
Category: Cultivated Plants. Fruit. Berries.

Abs Jour: RZhBiol., No 11, 1958, No 49134

Author : Lebedev, P.M.
Inst : -
Title : Wild Strawberry--Strawberry Hybrid (Podmoskovnaya variety)

Orig Pub: Sad i ogorod, 1957, No 11, 56

Abstract: No abstract.

Card : 1/1

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SAMOYLOV, I.V.; LEBEDEV, P.N.

Visual aids of the geographical faculty. Uch. zap. MGPI no.159: 63-76 '60. (MIRA 16:9)

KAZAKEVICH, F.P., kand. tekhn. nauk; STEPANENKO, V.F., inzh.;
LEBEDEV, P.M., inzh.; CHERNYAVSKIY, A.F., inzh.

Heat transfer in a combustion chamber during the burning of natural gas. Izv. vys. ucheb. zav.; energ. 7 no.2:51-56 F '64. (MIRA 17:3)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut. Predstavlena kafedroy teplotekhniki.

KAZAKEVICH, F. P., kand. tekhn. nauk; STEPANENKO, V. F., inzh.; LEBEDEV, P. M., inzh.; CHERNYAVSKIY, A. F., inzh.

Heat transfer in a ribbed feed-water economizer in a boiler system operating on natural gas. Teploenergetika 10 no.3: 54-56 Mr '63. (MIRA 16:4)

1. Dnepropetrovskiy inzhenerno-stroitel'nyy institut.

(Boilers)

LEBEDEV, P.N., inzh. (Kolomna)

Protection of urban gas pipelines from electrochemical corrosion.
Stroi.truboprov. 5 no.1:19-20 Ja '60. (MIRA 13:8)
(Gas, Natural--Pipelines)
(Electrolytic corrosion)

LEBEDEV, P.N.

Granitized rocks in the Kochkarka region (Southern Ural). Biul. nauch.-tekh.inform VIMS no.1:10-13 '63. (MIRA 18:2)

1. Ural'skoye geologicheskoye upravleniye.

IGNAT'YEV, G.M.; LEBEDEV, P.N.

All-Union Conference on the Recording and Qualitative Evaluation of Agricultural Lands. Izv. vses. geog. obva 92 no.6:545-547 N-D '60. (MIRA 14:1)

(Land---Congresses)

IVANOV, K.I.; LEBEDEV, P.N.

Compiling maps of the agricultural use of soil as one of the contacts between teaching geography and life. Geog. v shkole 25 no.2:38-43 Mr-Ap '62. (MIRA 15:2)

(Agricultural geography)

IVANOV, K.I., red.; BELOTSERKOVSKIY, M.Yu., red.; BOLYSHEV, N.N., red.; GEDYMIN, A.V., red.; GLAZOVSKAYA, M.A., red.; GOLOVENKO, S.V., red.; ZVORYKIN, K.V., red.; IGNAT'YEV, G.M., red.; KUZNETSOV, G.A., red.; LEBEDEV, N.P., red.; LEBEDEV, P.N., red.; RAKITNIKOV, A.N., red.; SHEYNIN, L.B., red.; GREBTSOV, P.P., red.; YERMAKOV, M.S., tekhn. red.

[Accounting for and the evaluation of agricultural land] Uchet i otsenka sel'skokhoziaistvennykh zemel'. Pod red. K.I. Ivanova. Moskva, Izd-vo Mosk. univ., 1963. 385 p. (MIRA 16:7)

(Farm--Valuation) (Soils--Classification) (Cadasters)

LEBEDEV, P.N., inzh.

Composite protection of underground metallic structures from corrosion in Astrakhan. Stroi.truboprov. 6 no.11:22-23 N '61. (MIRA 15:4)

(Astrakhan--Electrolytic corrosion)

LEBEDEV, Petr Nikolayevich; NIKOL'SKIY, K.K., red.; KOMONOV, A.S., red. izd-va; KHENOKH, F.M., tekhn. red.

[Protecting urban gas networks from corrosion]Opyt zashchity gorodskikh gazovykh setei ot korrozii. Moskva, Izd-vo M-va kommun.khoz. RSFSR, 1962. 80 p. (MIRA 15:9)
(Gas pipes--Corrosion)

LEBEDEV, P.N.

Age of metamorphic rocks in the Kamenka and Sanarka basins of the Kochkar region (Southern Urals). Mat.po geol.i pol.iskop. Urala no.10:107-110 '62. (MIRA 16:2)
(Ural Mountains--Rocks, Crystalline and metamorphic)
(Ural Mountains--Geological time)

GEORGOBIANI, A.N.; GOLUBEVA, N.P.; LEBEDEV, P.N.

Excitation of electroluminescence in alkali halide compounds. Chekhosl fiz zhurnal 13 no.2:91-93 '63.

1. Physical Institute, Academy of Sciences of the U.S.S.R., Moscow, U.S.S.R.

SILANT'YEV, A.P., polkovnik; ZELENOV, P.T., polkovnik; LEBEDEV, P.N., mayor; KOVALEV, V.V., mayor

Flights are the main concern of the staff. Vest.Vozd.Fl. no.2:26-40 F '61. (MIRA 14:7)

(Russia—Air force)

LEBEDEV, P.N., inzh.

Protecting city gas pipes from electrochemical corrosion.
Stroi. truboprov. 7 no.5:16-19 My '62. (MIRA 16:6)

(Gas pipes) (Electrolytic corrosion)

LEBEDEV, P.P., inzhener.

Tecnnical control of turbine oil. Masl.-zhir.prom. 19 no.3:25-28 '54. (MLRA 7:6)

1. Glavraszhirmaslo. (Steam turbines) (Lubricantion and lubricants)

SOV/89-5-5-2/27

21(7)

AUTHORS: Lebedev, P. P., Zysin, Yu. A., Klintsov, Yu. S., Stsiborskiy, B. D.

TITLE: The Neutron Yield From Inelastic Interaction of Neutrons of 14 MeV Energy With Nuclei and the Reaction Cross Sections (n,2n) (Vykhod neytronov pri neuprugom vzaimodeystvii neytronov s energiyey 14 Mev s yadrami i secheniye reaktsii (n,2n))

PERIODICAL: Atomnaya energiya, 1958, Vol 5, Nr 5, pp 522-525 (USSR)

ABSTRACT: The quantities η_a and σ_{in} were measured for 10 nuclei (natural isotope-composition). η_a is the number of neutrons produced by inelastic scattering of neutrons with a nucleus. The relative variation of the entire neutron flux and the weakening of the primary neutron flux after passage through the target is determined. Measurements were carried out in spherical geometry. The neutron source was located in the center.

The relative weakening of the primary neutron flux was measured

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The Neutron Yield From Inelastic Interaction of Neutrons of 14 MeV Energy With Nuclei and the Reaction Cross Sections (n,2n)

by means of a copper indicator $\left[Cu^{63}(n,2n)Cu^{62}\right]$. The relative variation of the total neutron flux was measured by means of a boron counting-tube in the paraffin block, which is described (Ref 2).
Measuring errors could not be kept below an average of ±2 %. The values for σ_{in} agree with previously obtained results. The values η_a are higher by 10-15 % than those mentioned by reference 1. In a similar manner the values $(\sigma_{n,2n}-\sigma_c)$ differ in the same direction as η_a from the values mentioned (Ref 1). The following measuring results were obtained:

Element	η	σ_{in}, b	$(\sigma_{n,2n}-\sigma_c)$, b
Fe	1,20±0,15	1,44±0,04	0,26±0,1
Cu	1,34±0,15	1,50±0,07	0,47±0,1
Mo	1,64±0,2	1,60±0,15	1.0 ±0,2

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The Neutron Yield From Inelastic Interaction of Neutrons of 14 MeV Energy With Nuclei and the Reaction Cross Sections (n,2n)

Element	η	σ_{in}, b	$(\sigma_{n,2n}-\sigma_c)$, b
Cd	1,74±0,2	1,87±0,2	1,38 ± 0,3
Sn	1,81±0,2	1,83±0,2	1,48 ± 0,3
Sb	1,82±0,2	1,85±0,13	1,52 ± 0,2
Hg	1,86±0,2	2,46±0,1	2,02 ± 0,2
Pb	1,92±0,2	2,46±0,1	2,18 ± 0,2
Bi	1,88±0,2	2,58±0,1	2,18 ± 0,2
U	2,8 ±0,25	2,91±0,14	-

A. A. Malinkin took part in the experiments. There are 1 figure, 1 table, and 10 references, 2 of which are Soviet.

SUBMITTED: April 17, 1958
Card 3/4

LEBEDEV, P.P.

Bulgarian National Exhibition in Moscow. Vest. mashinostr. 43 no.12:86 D '63. (MIRA 17:3)

LEBEDEV, P.P., inzh.

International exhibition in Brno (Czechoslovakia). Vest. mashinostr. 44 no.12:80-82 D '64. (MIRA 18:2)

DENSHCHIKOV, Mikhail Tikhonovich, kand.tekhn.nauk; SILIN, P.M., prof., red.; VESELOV, I.Ya., prof., red.; SMIRNOV, V.A., prof., red.; RZHEKHIN, V.P., red.; LEBEDEV, P.P., red.; KOVALENKO, Yu.T., red.; KUPCHINSKIY, P.D., red.; BENIN, G.S., red.; P'YANKOV, A.G., red.; SHNAYDMAN, L.O., red.; MOREV, N.Ye., red.; SHMAIN, M.M., red.; BULGAKOV, N.I., red.; MAYOROV, V.S., red.; TERNOVSKIY, N.S., red.; RAZUVAYEV, N.I., red.; OGORODNIKOV, S.T., red.; BURMAN, M.Ye., red.; KHOLOSTOV, V.A., red.; NAMESTNIKOV, A.F., red.; NASAKIN, T.N., red.; KOVALEVSKAYA, A.I., red.; KISINA, Ye.I., tekhn. red.

[Wastes from the food industry and their utilization] Otkhody pishchevoi promyshlennosti i ikh ispol'zovanie. Izd. 2., dop. i perer. Moskva, Pishchepromizdat, 1963. 615 p. (MIRA 16:6)
(Food industry--By-products)

LEBEDEV, P.P., inzh.

International exhibition in Czechoslovakia. Vest. mashinostr. 45 no. 12:82-84 D '65 (MIRA 19:1)

LEBEDEV, P. T., Senior Vet.
Sovkhoz "Primor'e", Krym Oblast
"Experiment of eradication of paratyphoid of calves."
SO: Vet. 27 (11) 1950, p. 15

[illegible], T.

Bang's Disease

Role of housing and feeding sheep in eradication of Bang's Disease. Kar. i. zver. 5 No. 2, 1952

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified

[illegible], [illegible] ([illegible]).

"[illegible]."

[illegible]: [illegible], [illegible], [illegible], [illegible], [illegible].

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R000929020013-5"

LEBEDEV, P.T.

ALIKAEV, V. A., LEBEDEV, P. T., Fellow, BALAKIREVA, G. A.
"Utilization of plasmon in veterinary practice."
SO: Vet. 29 (7) 1952, p. 53

LEBEDEV, P. T.

Vitamins

Improvement in the method of determining vitamin A in the blood and tissues of animals. Sov. zootekh. 8, No. 2, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. UNCLASSIFIED.

LEBEDEV, P.T., kandidat veterinarnykh nauk.

Prevention and therapy of gastrointestinal diseases in calves. Veterinariia 31 no.2:41-42 F '54. (MLRA 7:2)

1. Sibirskiy zonal'nyy nauchno-issledovatel'skiy veterinarnyy institut. (Calves--Diseases)

LEBEDEV, P.T., kandidat veterinarnykh nauk.

Complex measures in animal hygiene serve as basis for the prevention of gastrointestinal and pulmonary diseases in calves. Veterinariia 32 no.1:80-84 Ja '55. (MLRA 8:2)

1.Omskiy nauchno-issledovatel'skiy veterinarnyy institut.
(CALVES--DISEASES--PREVENTION)

LEBEDEV, P.T., kandidat veterinarnykh nauk.

Diagnosing of mineral and vitamin deficiency should be improved. Veterinariia 32 no.10:81-83 O '55. (MLRA 8:12)

1.Sibirskiy zonal'nyy nauchno-issledovatel'skiy veterinarnyy institut.

(DEFICIENCY DISEASES IN DOMESTIC ANIMALS)

USSR/Human and Animal Physiology - Metabolism. T-2

Abs Jour : Ref Zhur - Biol., No 7, 1958, 31378

Author : Lebedev, P.T.

Inst :

Title : On the Metabolic Exchange of Vitamin A in the Organism of Animals.

Orig Pub : Sb. nauch. rabot Sibersk. n.-i. vet. in-ta, 1956, vyp. 6, 11-15

Abstract : For the determination of the content of carotin (C) in the blood of animals, the Rachevskiy method is used as modified by the All-Union Institute of Experimental Veterinary Medicine. No C was found in the blood (more than 600 samples) and liver of sheep. C was not found in the blood of different breeds of sheep even in occasions where its content in the fodder comprised ~ 500 mg in 24 hours per sheep, i.e., in a quantity exceeding by 15-20 times the requirement of the animals for it. The content of vitamin A in

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LEBEDEV, P.T., nauchnyy sotrudnik

Concentrated feed rich in vitamins and proteins. Nauka i pered. op. v sel'khoz. no.10:10 0 '56. (MLRA 9:12)

1. Sibirskiy zonal'nyy nauchno-issledovatel'skiy veterinarnyy institut.
(Feeding and feeding stuffs) (Vitamins) (Proteins)

LEBEDEV, P.T., kandidat veterinarnykh nauk.

Mineral and vitamin nutrition is an important factor in the control of sterility in cows. Veterinariia 33 no.11:67-70 N '56. (MLRA 9:11)

1. Sibirskiy nauchno-issledovatel'skiy veterinarnyy institut.
(Feeding and feeding stuffs) (Sterility in animals)
(Cows--Diseases)

LEBEDEV, P.T., kand. vet. nauk

Raising calves in unheated barns. Veterinariia 35 no.3:65-67 Mr '58. (MIRA 11:3)

1. Sibirskiy nauchno-issledovatel'skiy veterinarnyy institut.
(Calves)

LEBEDEV, P.T., kand.vet.nauk

Work should be intensified on diagnosing and preventing mineral and vitamin deficiencies in animals. Veterinariia 35 no.11: 36-37 N '58. (MIRA 11:11)

1. Sibirskiy nauchno-issledovatel'skiy veterinarnyy institut.
(Deficiency diseases in domestic animals)

LEBEDEV, P.T., kand.veterinarnykh nauk

Zoohygienic measures in preventing infectious atrophic rhinitis in swine. Veterinariia 39 no.1:66-69 Ja '62. (MIRA 15:2)

1. Sibirskiy nauchno-issledovatel'skiy veterinarnyy institut.
(Swine--Diseases and pests)

LEBEDEV, P.T., kand.veter. nauk

Improve the veterinary hygienic measures for rearing calves with nurse cows. Veterinariia 39 no.1:70-74 Ja '63. (MIRA 16:6)

1. Sibirskiy nauchno-issledovatel'skiy veterinarnyy institut.
(Siberia--Calves--Feeding and feeds)

LEBEDEV, P.T., kand. veter. nauk; UGLOVA, N.V., veterinarnyy vra h

Using marl for growing green forage by hydroponics.
Veterinariia 40 no.11:65-66 N '63. (MIRA 17:9)

1. Sibirskiy nauchno-issledovatel'skiy veterinarnyy institut.

LEBEDEV, P.T., kand. veter. nauk; PANTELEYEVA, M.D., nauchnyy sotrudnik

Effect of the silage-type feeding of cows and heifers on the manifestation of dyspepsia in calves. Veterinariia 41 no.1: 93-95 Ja '64. (MIRA 17:3)

1. Sibirskiy nauchno-issledovatel'skiy veterinarnyy institut.

LEBEDEV, P.T.; USOVICH, A.T.; CHEPUROV, K.P., prof.; KAL'CHENKO, M.M., aspirant; MATUSEVICH, V.F., doktor veterin. nauk; STEN'KO, A.S., mladshiy nauchnyy sotrudnik; LAKHMYTKINA, A.N., aspirant; GRISHCHENKO, N.F.; ORLOV, A.I., veterinarnyy vrach (Arkhangel'skaya obl.); PROSTYAKOV, A.P., kand. biolog. nauk; KOVYNDIKOV, M.S., kand. veterin. nauk; ARIFDZHANOV, K.A., kand. veterin. nauk

Veterinary experiments. Veterinariia 41 no.4:101-111 Ap '64.
(MIRA 17:8)

1. Sibirskiy nauchno-issledovatel'skiy veterinarnyy institut (for Lebedev, Usovich). 2. Poltavskiy sel'skokhozyaystvennyy institut (for Chepurov, Kal'chenko). 3. Ukrainskiy nauchno-issledovatel'skiy institut zemledeliya (for Matusevich, Sten'ko, Lakhmytkina). 4. Chernigovskaya oblastnaya veterinarnaya laboratoriya (for Grishchenko). 5. Ukrainskiy nauchno-issledovatel'skiy institut eksperimental'noy veterinarii (for Prostyakov, Fortushnyy, Kovyndikov). 6. Uzbekskiy nauchno-issledovatel'skiy veterinarnyy institut (for Arifdzhanov).

LEBEDEV, P.T.; USOVICH, A.T.; CHEPUROV, K.P., prof.; KAL'CHENKO, M.M., aspirant; MATUSEVICH, V.F., doktor veterin. nauk; STEN'KO, A.S., mladshiy nauchnyy sotrudnik; LAKHMYTKINA, A.N., aspirant; GRISHCHENKO, N.F.; ORLOV, A.I., veterinarnyy vrach (Arkhangel'skaya obl.); PROSTYAKOV, A.P., kand. biolog. nauk; KOVYNDIKOV, M.S., kand. veterin. nauk; ARIFDZHANOV, K.A., kand. veterin. nauk

Veterinary experiments. Veterinariia 41 no.4:101-111 Ap '64.
(MIRA 17:8)

1. Sibirskiy nauchno-issledovatel'skiy veterinarnyy institut (for Lebedev, Usovich). 2. Poltavskiy sel'skokhozyaystvennyy institut (for Chepurov, Kal'chenko). 3. Ukrainskiy nauchno-issledovatel'skiy institut zemledeliya (for Matusevich, Sten'ko, Lakhmytkina). 4. Chernigovskaya oblastnaya veterinarnaya laboratoriya (for Grishchenko). 5. Ukrainskiy nauchno-issledovatel'skiy institut eksperimental'noy veterinarii (for Prostyakov, Fortushnyy, Kovyndikov). 6. Uzbekskiy nauchno-issledovatel'skiy veterinarnyy institut (for Arifdzhanov).

LEBEDEV, P.T., kand. veterin. nauk

Use of formalin and carbamide in preparing corn silage. Veterinariia 41 no.9:94-95 S '64. (MIRA 18:4)

1. Sibirskiy nauchno-issledovatel'skiy veterinarnyy institut.

LEBEDEV, P.T., kand.veterin.nauk; POGREBNYAK, M.P., nauchnyy sotrudnik

Loose housing of cows in Siberia. Veterinariia 41 no.3:84-86 Mr '65.
(MIRA 18:4)

1. Sibirskiy nauchno-issledovatel'skiy veterinarnyy institut.

LEBEDEV, P.T.; YARNYKH, A.M., red.

[Hygiene in growing young livestock] Gigiena vyrashchivaniia molodniaka. Moskva, Kolos, 1965. 191 p.
(MIRA 19:1)

LEBEDEV, P.V.

Promising perennial grasses for cultivation in the forest steppe of the trans-Ural region. Trudy Bot.inst.Ser.6 no.7:225-228 '59. (MIRA 13:4)

1. Ural'skiy gosudarstvennyy universitet im. A.M.Gor'kogo, Sverdlovsk.
(Ural Mountain region--Grasses)

LEBEDEV, P.V., dots.

Using seeds of wild grasses for the improvement of meadows.
Zemledelie 7 no.12:82 D '59. (MIRA 13:3)

1. Ural'skiy gosudarstvennyy universitet im.A.M.Gor'kogo.
(Pastures and meadows)

LEBEDEV, P.V.

Biology and productivity of red clover under natural conditions and in cultivation. Bot.zhur.41 no.9:1346-1349 S '56. (MLRA 9:11)

1. Ural'skiy gosudarstvennyy universitet, Sverdlovsk.
(Clover)

LEBEDEV, P.V.; MEL'NIK, N.S.

Effect of soil moisture and nitrogen fertilizers on the periodicity of shoot formation in the meadow fescue (Festuca pratensis). Nauch.dokl.vys.shkoly; biol.nauki no.3:186-191 '59.
(MIRA 12:10)

1. Rekomendovana kafedroy botaniki Ural'skogo gosudarstvennogo universiteta im. A.M.Gor'kogo.
(Fescue grass) (Plants, Effect of nitrogen on)
(Soil moisture)

LEBEDEV, P.V., glavnyy zootekhnik

Silage as a roughage substitute in cow rations. Zhivotnovodstvo 21 no.5:85 My '59. (MIRA 12:7)

1. Solganskiy sovkhoz, Uzhurskogo rayona, Krasnoyarskogo kraya. (Cows--Feeding and feeding stuffs) (Ensilage)

LEBEDEV, P.V.

Effect of the disposition of components on the yields of a grass mixture. Bot.zhur. 45 no.6:880-888 Je '60.
(MIRA 13:7)

1. Ural'skiy gosudarstvennyy universitet im. A.M.Gor'kogo, g.Sverdlovsk.
(Pasture research)

LEBEDEV, P.V.; BOROVSKAYA, T.A.

Effect of nitrogen and soil moisture on shoot formation and productivity in the awnless brome grass. Bot. zhur. 46 no.9:1276-1281 S '61. (MIRA 14:9)

1. Ural'skiy gosudarstvennyy universitet im. A.M.Gor'kogo, Sverdlovsk.
(Brome grass) (Plants, Effect of nitrogen on)
(Plants, Effect of soil moisture on)

LEBEDEV, P.V.; PORTNOVA, E.A.; SKINDER, V.S.

Interrelations among the components of grass mixtures.
Zap. Sverd. otd. VBO no.2:33-40 '62. (MIRA 16:8)

LEBEDEV, P.V.

Effect of nitrogen nutrition and light intensity on interrelationships in the growth of shoots and roots of meadow grasses. Fiziol. rast. 10 no.3:358-365 My-Je '63. (MIRA 16:6)

1. Department of Botany, Ural State University, Sverlovsk.
(Plants, Effect of nitrogen on)
(Plants, Effect of light on)
(Grasses)

LEBEDEV, P.V.; MEL'NIK, N.S.; BOROVSKAYA, T.A.

Effect of the nitrogen nutrition level on the tillering and productivity of meadow grasses. Zap. Sverd. otd. VBO no.3: 111-119 '64 (MIRA 18:2)

LEBEDEV, P.V.; MEL'NIK, N.S.; BOROVSKAYA, T.A.

Effect of cultivation conditions on the development of wild meadow grasses. Bot. zhur. 49 no.3:404-412 Mr '64.
(MIRA 17:3)

1. Ural'skiy gosudarstvennyy universitet, Sverdlovsk.

AUTHOR: Glagolev, V. V., and Lebedev, R. M. 120-2-32/37

TITLE: Investigation into Possibility of Constructing an Instrument for the Automatic Scanning of Thick Films of Photographic Emulsions. (Issledovaniye Vozmozhnosti Sozdaniya Pribora dlya Avtomaticheskogo Prosmotra Tolstosloynykh Fotograficheskikh Emul'siy.)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No. 2, pp. 114 - 116 (USSR).

ABSTRACT: Thick photographic emulsions are often used in studies of elementary particle interactions. It is often necessary to follow tracks of charged particles in emulsions. The speed of this does not exceed 50 cm per day. In order to obtain statistically accurate results, years of work of an investigator are needed. In recent years (Refs. 1 and 2) automatic track counters have been described. In the present article the authors discuss the possibility of constructing an instrument which would automatically inspect a track. An attachment, using two photomultipliers is added to the type MB-8 microscope (Fig. 1), the picture of the slot with the trace being projected on to the cathode of one of the photomultiplier tubes and the largest part of the background on to the other. The deflection of a microammeter determines therefore the track-background

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Investigation into the Possibility of Constructing an Instrument for the Automatic Scanning of thick Films of Photographic Emulsions.

difference. The reproducibility is about 2% of FSD. The possibility of using the instrument for relativistic particles (grain density 20-25 per 100 micron) is of some interest. It is found that, when working with relativistic particles, it is necessary either to increase the density and size of the grains or to introduce summation over several inspection fields. The experiments have shown that it is possible to obtain, even for relativistic particles, a stable signal source for automatic inspection of tracks. One circuit diagram and four graphs of experimental results are given. M.I. Podgoretskiy, K.D. Tolstov, and I.V. Shtranikh took part in the evaluation of the obtained results. There are 2 references, none of which is Slavic.

SUBMITTED: June 31, 1956.

AVAILABLE: Library of Congress.

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AUTHOR LEBEDEV, R.M. 89-9-17/32

TITLE News Concerning the United Institute for Nuclear Research.
(V ob"yedinennom institute yadernykh issledovaniy)

PERIODICAL Atomnaya Energiya, 1957, Vol 3, Nr 9, pp 263-265 (USSR)

ABSTRACT The 2. session of the Scientific Council of the above institute took place at Dubna from the 15. to the 18.May 1957:

1.) The synchrophasotron was put into operation. VEKSLER reported on the various stages of this process. The following principal parts were tested one after the other before being put into operation:
   a) Feeding of electromagnets,
   b) Magnet with field variable with respect to time,
   c) Vacuum system,
   d) High frequency system,
   e) Introduction of beam into the device and emission of the accelerated beam.
2.) The scientific activities of the laboratory for high energies.

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In particular, methods were worked out for the recording and investigation of the behavior of high energy particles. The following work was carried out: A large propane bubble chamber; a device for applying solid hydrogen and deuterium on to nuclear photo plates; production of organic scintillators of any size; development of a new method for the discrimitation of particles up to 5 BeV. Scientific work: New particles and new nuclear reactions are especially investigated.

3.) Report of the Laboratory for Nuclear Problems:
   a) The synchrocyclotron available is now able to furnish protons of up to 680 MeV and can be operated during 140 hours per week,
   b) Elastic scattering of polarized and not polarized nucleons by various nuclei at 600-660 MeV.
   c) Forming of p-mesons by polarized and not polarized nucleons,
   d) Forming of p-mesons by p-mesons,
   e) Scattering of p-mesons by various nuclei,
   f) Interaction of high-energy particles with complicated nuclei,
   g) Investigation of the properties of μ-mesons and the processes with weak interaction.

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4.) The Laboratory for Theoretical Physics published

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a report on:

a) General problems of the quantum field theory,
b) Dispersion conditions,
c) Influence exercised by the internal structure of a nucleus in the interaction with p-mesons, electrons, and photons,
d) Attempt at providing theoretical proof of the existence of new particles,
e) Theory of the interaction of elementary particles.

5.) The Laboratory for Neutron Physics is at present building an impulse reactor.

6.) In all laboratories of the Institute International Cooperation is promoted and will be further extended.

ASSOCIATION: not given.
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